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A Revision of the Japanese Species of the Genus *Paromius* (Heteroptera, Lygaeidae)

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Abstract The Japanese species of the genus *Paromius* are taxonomically reviewed with correction for several misidentifications and description of a new species.

Key words: revision, *Paromius*, Lygaeidae, Heteroptera, new species.

It is generally considered that four species of the genus *Paromius* are distributed in Japan (TACHIKAWA, KOBAYASHI & HASEGAWA, 1976; MIYAMOTO & YASUNAGA, 1989), that is, *P. gracilis* (RAMBUR) (=*P. pallidus* (MONTROUZIER)), *P. exiguus* (DISTANT), *P. jejunus* (DISTANT) and *P. piratoides* (COSTA). Of these, the first two are known as the economically important species producing pecky rice. However, identity of these species still remains uncertain, since their identification is not always easy and since the taxonomical status of the species concerned has not been properly reviewed up to the present.

In 1995, I was given an opportunity to examine the lygaeid type materials including those of *Paromius* species preserved in several European museums. After a careful examination, I realized that our taxonomical knowledge on these species should be partly corrected, as mentioned below. Finally, four *Paromius* species are recognized from Japan including a new species described herein.

Depository of examined specimens not belonging to the National Science Museum, Tokyo, are abbreviated in the text as follows: EU, Entomological Laboratory, Ehime University, Matsuyama, Japan; NHM, Department of Entomology, The Natural History Museum, London, UK.; SMNH, Swedish Museum of Natural History, Stockholm, Sweden; ZMUH, Zoological Museum, University of Helsinki, Finland.

Genus *Paromius* FIEBER, 1860

Stenocoris RAMBUR, 1839, 139 (in Coreidae; nom. praeocc.).
Paromius FIEBER, 1860, 45, 170 (nom. nov. for *Stenocoris* RAMBUR, praeocc.).
Type species: *Stenocoris gracilis* RAMBUR, 1839.

This genus is characterized by the elongate and nearly parallel-sided body, comparatively long antennae, short head only slightly longer than wide, small

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eyes widely separated from each other, wide postocular space well constricted behind, broad pronotal collar, less inflated anterior pronotal lobe distinctly lower than posterior one, reduced dark markings of hemelytra, moderately incrassate fore-femora which are ventrally armed with two series of spines, and male genitalia of type II sensu HARRINGTON (1980) provided with a pair of conjunctival processes and a pair of vesical processes, the outer margins of which are serrate.

Paromius gracilis (RAMBUR, 1839)

[Japanese name: Akaashi-hoso-nagakamemushi]

(Figs. 1a, 2a, 3a, 4a, b)

Stenocoris gracilis RAMBUR, 1839, 140.
Paromius gracilis: FIEBER, 1861, 171.
Plociomerus pallidus MONTROUZIER, 1865, 229(syn. by MALIPATIL, 1978).
Plociomerus seychellesus WALKER, 1872, 120(syn. by CHINA, 1924).
Pamera gracilis: REUTER, 1882, 17.
Pamera ejuncida DISTANT, 1883, 433(syn. with *Plociomerus seychelles* WALKER by DISTANT, 1901).
Paromius seychellesus: LETHIERRY & SEVERIN, 1894, 189; HASEGAWA, 1954, 10; MIYAMOTO & HIDAKA, 1963, 79.
Paromius ejuncida: OSHANIN, 1906, 304.
Paromius pallidus: DISTANT, 1913, 556; BARBER, 1958, 196; TACHIKAWA, KOBAYASHI & HASEGAWA, 1976, 152; TOMOKUNI, 1982, 336; MIYAMOTO & YASUNAGA, 1989, 177; TOMOKUNI *et al.*, 1993, 194, pl. 55, fig. 188.
Other synonyms are omitted.

Diagnosis. Body length 6.3–7.8; head width across eyes 0.9–1.0; pronotal length 1.4–1.7, width across humeri 1.3–1.6; hemelytral length 4.1–5.1, width at the widest part 1.3–1.7; antennal length 3.9–4.7, in mm.

Ground colour of body opaque light brown. Head black, with clypeus brown. Anterior pronotal lobe and thoraces beneath except for each postal part blackish brown. Scutellum reddish brown, with apex yellowish; basal part and median carina darkened. Legs light brown, with apical segment of each tarsus blackish; all femora never infuscated.

Body elongate, nearly parallel-sided. Head nearly as long as wide; vertex clearly convex; proportion of antennal segments 1 to 4 as 1 : 2.2 : 1.9 : 2; rostrum projected behind a little beyond fore-coxae, but not reaching middle of mesosternum. Pronotum (Fig. 3a) distinctly longer than wide, with anterior and posterior margins concave; pronotal collar coarsely punctate, as wide as 1st antennal segment; anterior pronotal lobe hardly swollen, divergent behind, one and a half times as long as the posterior lobe, with lateral margins nearly straight; posterior pronotal lobe coarsely punctate, slightly higher than the anterior lobe, distinctly tumid at humeri which are impunctate, sometimes with a dark medial

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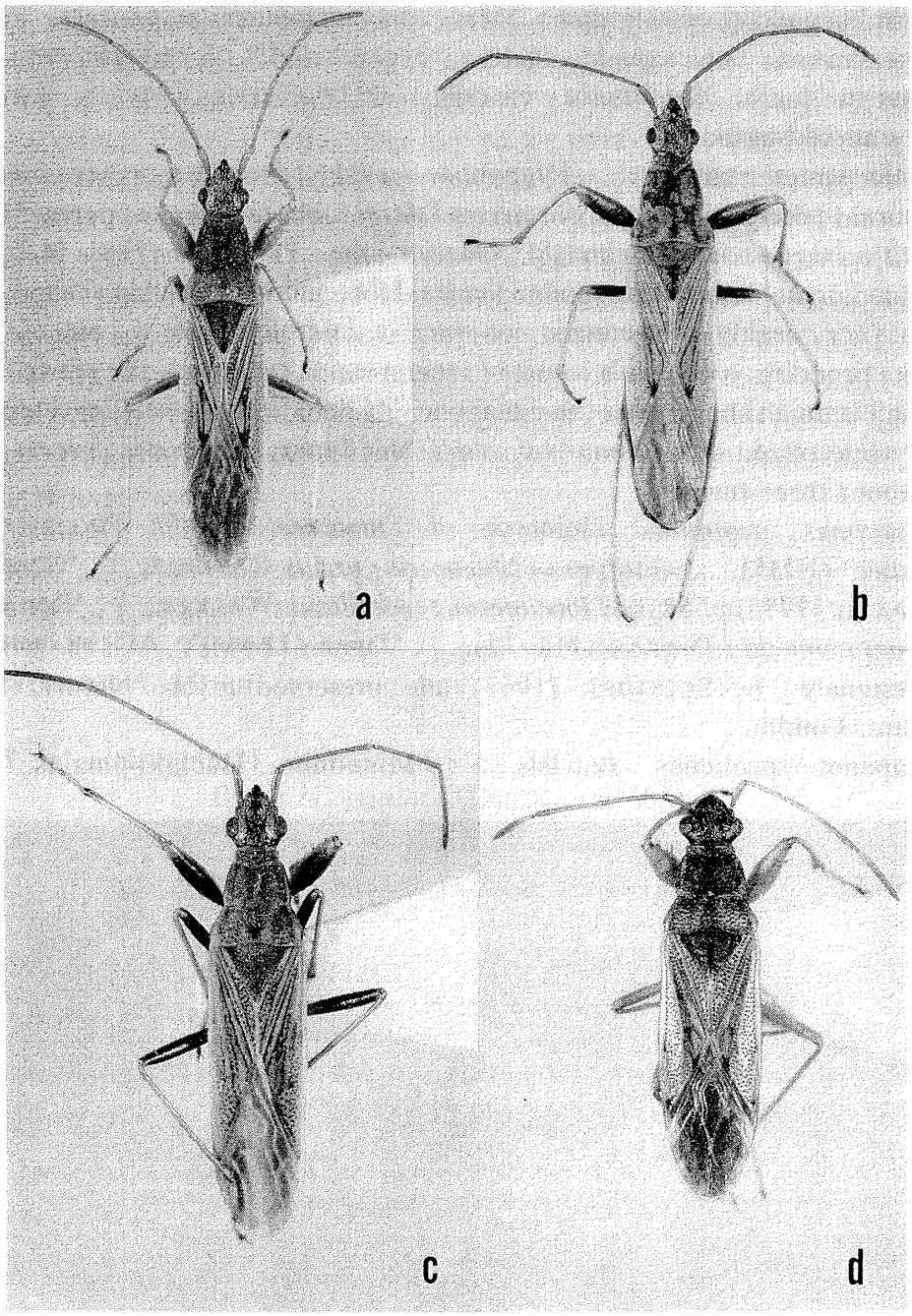

Fig. 1. *Paromius* spp. from Japan. a, *P. gracilis* (RAMBUR), ♂, Chichi-jima Is., Ogasawara Isls.; b, *P. jejunus* (DISTANT), ♀, Kawagoe-chô, Mie, Honshu; c, *P. exiguus* (DISTANT), ♂, Nichinan, Miyazaki, Kyushu; d, *P. nigriapicalis* sp. nov., holotype, ♂, Iriomote Is., the Ryukyus.

stripe apically. Scutellum punctate marginally, with disc elevated and impunctate. Hemelytra immaculate except for a pair of small dark spots before the middle of each apical corial margin. Membrane opaque, extending to just before

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or a little beyond tip of abdomen. Meso- and metapleura impunctate; evaporative area narrow, not expanded laterad beyond middle of metapleuron. Legs moderate in length; fore-femora ventrally with two series of spines; fore-tibiae slightly curved basad.

Male genital structure: — Pygophore weakly tuberclate postero-medially; pygophoral process with a pair of narrow lateral lobes which are porrect behind, and with a large triangular upright posterior lobe. Paramere (Figs. 4a, b) with protruded dorsal lobe, well expanded ventral lobe, and broad sickle-shaped blade. Phallus very weakly sclerotized; conjunctiva laterally with a pair of broad flap-like processes; vesica with a pair of membranous processes, the proximal one of which is much shorter than the distal one; helicoid process well developed, but weakly sclerotized, with about two and a half turns; gonoporal process short, with about three turns.

Specimens examined. Holotype of *Stenocoris gracilis* RAMBUR, ♀, 'Grendale' (NHM). Lectotypes of *Stenocoris gracilis* RAMBUR, ♀, 'Corse' (cf. MALIPATIL, 1978, p. 58); of *Plociomerus seychellesus* WALKER, ♀, 'Round Is.'; of *Pamera ejuncida* DISTANT (Fig. 2a), ♀, 'Japan (Lewis)'. All the lectotypes are designated by SCUDDER (1967) and preserved in the Natural History Museum, London.

Japanese specimens. Izu Isls.: 1♂, Mine-mura, Hachijô-jima Is., 7-VIII-

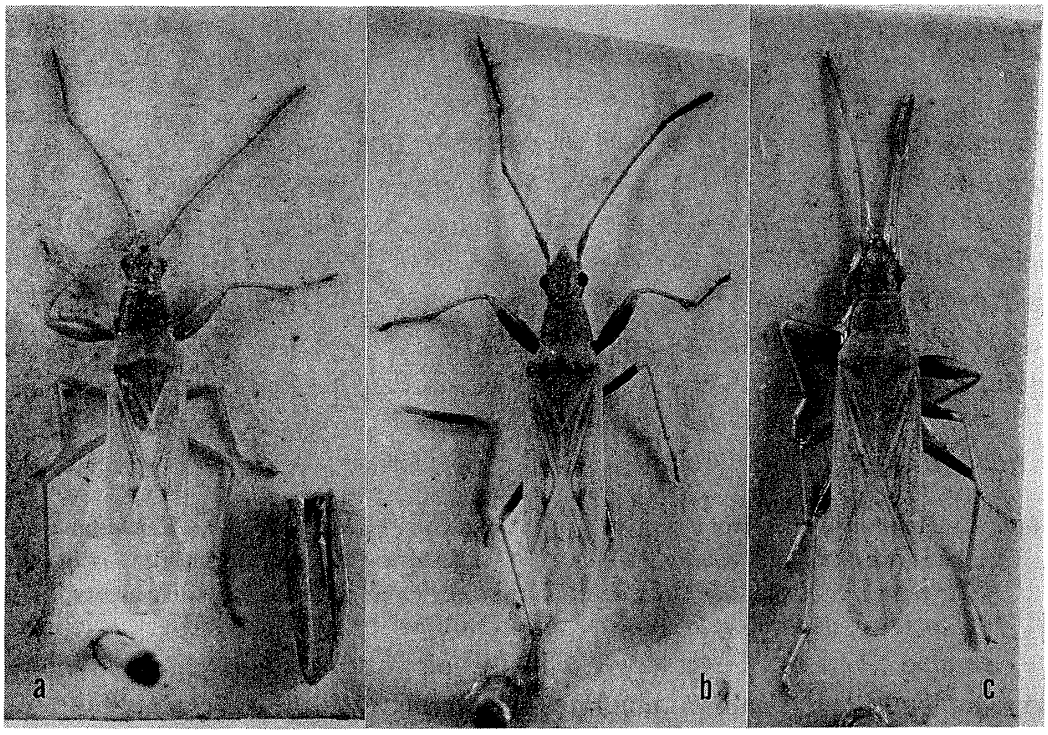

Fig. 2. Lectotypes of the Japanese *Paromius* spp. described by DISTANT (1883). a, *Pamera ejuncida*, ♀, (=*Paromius gracilis*); b, *Pamera jejuna*, ♀; c, *Pamera exigua*, ♂.

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1948, M. KUBOTA (EU). Honshu: 1♂, Mukai-jima Is., Hiroshima, 19-IX-1972, M. SAKAI (EU). Kyushu: 2♂, Sata-misaki, Kagoshima, 16-IX-1977, T. KAWASAWA. Ogasawara Isls. — Chichi-jima Is.: 1♂3♀, Mikazuki-yama, 19-XI-1977, M. TOMOKUNI; 2♂1♀, Miyanohama, 24-XI-1977, M. TOMOKUNI; 2♂3♀, Sakaiura, 22-XI-1977, M. TOMOKUNI; 2♂2♀, Sakaiura, 7-V-1983, M. TAKEDA; 1♂4♀, Yoake-yama～Hatsuneura, 7-XII-1977, M. TOMOKUNI; 1♂2♀, Shigure-yama, 8-XII-1977, M. TOMOKUNI; 1♂1♀, Chichi-jima, 21-VIII-1968, T. NAKANE. — Haha-jima Is.: 1♀, Okimura, 2-XII-1977, M. TOMOKUNI; 3♂, Okimura～Kuwanoki-yama, 27-XI-1977, M. TOMOKUNI; 1♂, Kuwanoki-yama, 30-XI-1977, M. TOMOKUNI; 1♂3♀, Haha-jima, 14-VII-1969, T. NAKANE. Iwô Isls.: 2♀, Minami Iwô-jima Is., 12-IV-1982, M. SATÔ. Ryukyu Isls. — Ishigaki-jima Is.: 1♂, Shiraho, 18-IV-1992, S. MIYAKAWA; 1♀, Mt. Banna-dake, 21-V-1973, S. HISAMATSU.

Distribution. Japan (Pacific side of SW. Honshu, Shikoku, Kyushu, Izu Isls., Ogasawara Isls., Ryukyu Isls.); Southern Palearctic, Oriental, Oceanian and Ethiopian Regions.

Remarks. This species is very closely related to *P. jejunus* as mentioned below.

Paromius jejunus (DISTANT, 1883)

[Japanese name: Kuroashi-hoso-nagakamemushi]

(Figs. 1b, 2b, 3b, 4c, d)

Pamera jejuna DISTANT, 1883, 434.

Paromius seychellesus [nec WALKER, 1872]: ESAKI, 1950, 226, fig. 581; HIDAKA, 1965, 87, pl. 4, fig. 7.

Paromius jejunus: HASEGAWA, 1954, 10; 1961, 1.

Paromius exiguus [nec DISTANT, 1883]: HASEGAWA, 1960, 37; TACHIKAWA, KOBAYASHI & HASEGAWA, 1976, 152; MIYAMOTO & YASUNAGA, 1989, 177; TOMOKUNI *et al.*, 1993, 193, pl. 53, figs. 186a, b.

Specimens examined. Lectotype of *Pamera jejuna* DISTANT (Fig. 2b), ♀, 'Japan (Lewis)', SCUDDER desig., 1967, (NHM). Paralectotype(?), ♂, 'Japan (Lewis)', (NHM).

Japanese specimens. Honshu: 1♂, Sagamihara, Kanagawa, 15-IX-1981, G. TOKIHIRO (EU); 1♀, Yokosuka, Kanagawa, 27-VIII-1936, T. ISHIHARA (EU); 1♂8♀, Miura, Kanagawa, 6-VIII-1977, N. OHBAYASHI; 1♀, Kugenuma, Kanagawa, 15-VII-1971 (EU); 1♂1♀, Hamamatsu, Shizuoka, 15-II-1981, K. TANAKA (EU); 3♂1♀, Kawaguchi-chô, Hekinan, Aichi, 26-VII-1982, B. TANAKA; 1♂, Ise-machi, Hekinan, Aichi, 12-X-1982, B. TANAKA; 1♂1♀, 3 km downstream from Tanao-bashi, Nishio, Aichi, 12-X-1982, B. TANAKA; 3♂1♀, Taketoyo Steam Power Station, Taketoyo, Aichi, 27-VII-1982, B. TANAKA; 1♀,

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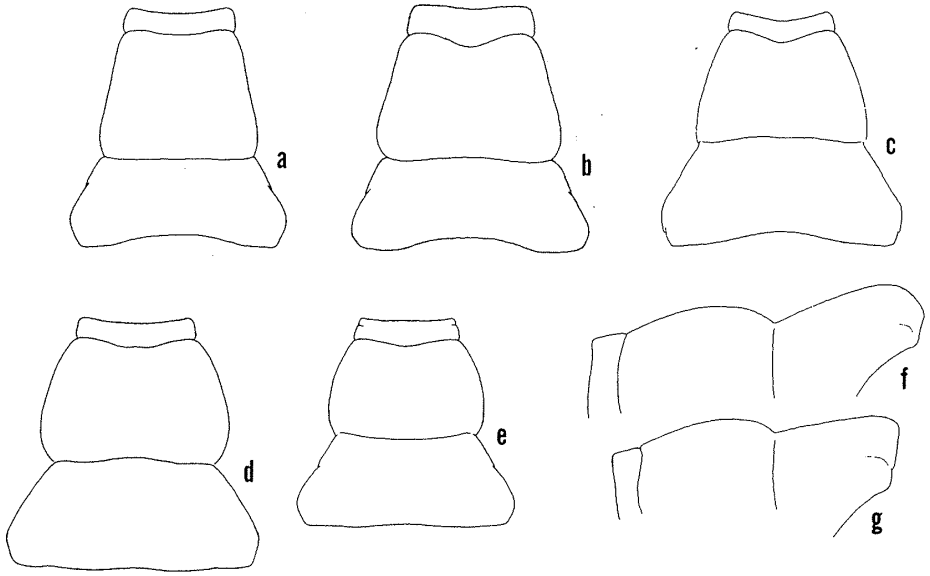

Fig. 3. Pronotum of *Paromius* spp. from Japan and Philippine. a, *P. gracilis*, Mukaijima Is., Hiroshima, Japan; b, *P. jejunus*, Kawagoe-chô, Mie, Japan; c, *P. exiguus*, Chita, Aichi, Japan; d & f, *P. excelsus*, Baguio, Luzon Is., Philippine; e & g, *P. nigriapicalis* sp. nov., Nakagusuku, Okinawa Is., the Ryukyus, Japan. a–e, dorsal view; f–g, lateral view.

Ichihara, Taketoyo, Aichi, 27-VII-1982, B. TANAKA; 1♀, Minamihama-chô, Chita, Aichi, 13-X-1982, B. TANAKA; 12♂12♀, Minamihama-chô, Chita, Aichi, 15-VII-1982, B. TANAKA; 9♂13♀, Mouth of Asake R., Kawagoe-chô, Mie, 12-VII-1982, B. TANAKA; 3♂3♀, Mouth of Asake R., Kawagoe-chô, Mie, 14-VII-1982, B. TANAKA; 3♂5♀, Mouth of Asake R., Kawagoe-chô, Mie, 21-IX-1982, B. TANAKA; 5♂5♀, Mouth of Asake R., Kawagoe-chô, Mie, 21-X-1982, B. TANAKA. Shikoku: 1♀, Yoshima Is., Kagawa, 23-IX-1972, H. TAGUCHI (EU); 1♀, Ashizurimisaki, Kôchi, 29-VII-1974, M. MIYATAKE (EU). Kyushu: 4♂3♀, Kashii, Fukuoka, 7-VIII-1960, S. MIYAMOTO; 4♂1♀, Hirado, Nagasaki, 18-VIII-1975, A. ODA (EU).

Distribution. Japan (Honshu, Shikoku, Kyushu).

Remarks. This species has been known in Japan under the name of *P. exiguus* (nec DISTANT) as an serious pest insect of the rice-plant.

This species is extremely similar to *P. gracilis* not only in external morphology but in the male genitalic structure as shown in the Figs. 1–4. Though it is barely distinguishable from the latter only by the infuscated femora and the developed dark stripes on the posterior pronotal lobe, these characters are not constant especially in the examples from the southern populations. Specimens from southern Shikoku or central and southern Kyushu are sometimes provided with only reddish brown femora and reduced dark markings on the posterior pronotal lobe. These two species seem to be nearly allopatrically distributed in

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Japan. *Paromius gracilis* is restricted within such southern areas as the Pacific side of southwestern Honshu, southern Shikoku, central and southern Kyushu, and the Ryukyu and the Ogasawara Islands. On the contrary, *P. jejunus* occurs in whole Honshu and Shikoku, and central and northern Kyushu. Their distributional ranges overlap in part of Honshu, Shikoku and Kyushu. Most of the less infuscated specimens mentioned above have been found in those coexisting areas of the two species, particularly in Kyushu. These facts strongly suggest that the two belong to the same species. It will be proved by careful experiment upon living materials of the species.

Paromius exiguus (DISTANT, 1883)

[Japanese name: Minami-hoso-nagakamemushi]

(Figs. 1c, 2c, 3c, 4e)

Pamera exigua DISTANT, 1883, 434.
Paromius exiguus: DISTANT, 1904, 51.
Paromius robustior BREDDIN, 1907, 204 (syn. by DISTANT, 1910).
Paromius piratoides [nec COSTA, 1864]: TACHIKAWA, KOBAYASHI & HASEGAWA, 1976, 152; TOMOKUNI, 1989, 191; MIYAMOTO & YASUNAGA, 1989, 177; TOMOKUNI *et al.*, 1993, 193, pl. 54, figs. 187a–d.

Diagnosis. Body length 7.1–8.9; head width across eyes 1.0–1.2; pronotal length 1.4–1.8, width across humeri 1.5–1.9; hemelytral length 4.8–5.9, width at the widest part 1.6–2.0; antennal length 4.1–4.9, in mm.

Ground colour of body opaque light brown. Head shining dark reddish brown. Anterior pronotal lobe, scutellum except for apex, and body beneath dark reddish brown to blackish brown. Antennae, rostrum and each coxa and femur mostly reddish brown.

Body elongate, nearly parallel-sided. Head slightly wider than long; vertex convex; eyes large, slightly prominent; proportion of antennal segments 1 to 4 variable, 1 : 2.3 : 2 : 2.5 in average; rostrum long, usually almost reaching mid-coxae. Pronotum (Fig. 3c) nearly as long as wide, covered with silvery pubescence, strongly constricted a little behind the middle, with anterior and posterior margins clearly concave; pronotal collar low, as wide as 1st antennal segment; anterior pronotal lobe swollen, distinctly lower than posterior lobe, with lateral margins rounded; posterior pronotal lobe coarsely punctate, elevated posteriad, distinctly tumid at humeri which are impunctate, weakly concave antero-medially. Scutellum pubescent, rather evenly punctate, with a median carina on apical two-thirds. Hemelytra without conspicuous marking; membrane opaque, extending a little beyond tip of abdomen. Meso- and metapleura coarsely punctate; peritreme of scent gland opening thick; evaporative area wide, expanded laterad beyond middle of metapleuron. Legs rather short as compared

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with body length.

Male genital structure: — Pygophoral process with a pair of narrow lateral lobes and a large posterior process which is triangularly projected upwards. Paramere (Fig. 4e) with short triangular dorsal lobe, narrow ventral lobe and well projected triangular process at the base of inner margin of blade; blade long and very wide, deeply notched before apex of its inner margin, with outer margin rounded. Phallus well sclerotized; phallotheca weakly sclerotized ventrally; conjunctiva with a pair of narrow prolonged processes, and ventrally with a triangular flap-like membranous process between the paired process; vesica with a pair of short triangular sclerotized processes near base; helicoid process well developed, with one and a half turns; gonoporal process long, well sclerotized, with about six turns.

Specimens examined. Lectotype of *Pamera exigua* DISTANT (Fig. 2c), ♂, 'Japan (Lewis)', SCUDDER desig., 1967, (NHM); apical segment of the right antenna is not missing in the specimen, not as in SCUDDER (1967), but it is abnormally three-segmented. Paralectotype(?), ♂, 'Japan(Lewis)' (NHM).

Japanese specimens. Honshu: 1♀, Ichihara, Taketoyo-chô, Aichi, 13-X-1982, B. TANAKA; 1♂2♀, Minámihama-chô, Chita, Aichi, 15-VII-1982, B. TANAKA. Shikoku: 1♂, Hakawa, Ino, Kôchi, 28-VI-1990, LT, I. YAMASHITA.

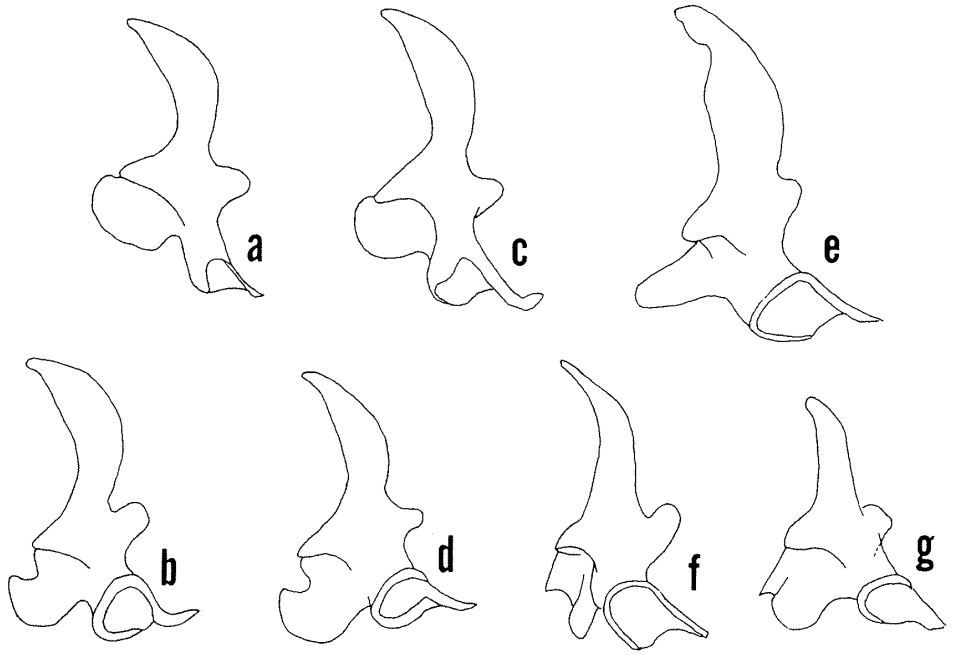

Fig. 4. Paramere of *Paromius* spp. from Japan and Philippine. a & b, *P. gracilis*, Chichi-jima Is., Ogasawara Isls. (a) and Mukaijima Is., Hiroshima (b); c & d, *P. jejunus*, Kashii, Fukuoka (c) and Kawagoe-chô, Mie (d); e, *P. exiguus*, Chita, Aichi; f, *P. nigriapicalis* sp. nov., Nakagusuku, Okinawa Is., the Ryukyus; g, *P. excelsus*, Baguio, Luzon Is., Philippine.

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Kyushu: 3♀, Udo-wakare, Nichinan, Miyazaki, 22-IX-1973, sweeping of weeds, T. KAWASAWA; 1♂1♀, Nonaka, Nichinan, Miyazaki, 22-IX-1973, sweeping of *Echinochloa crus-galli*, T. KAWASAWA. Ryukyu Isls. — Amami-oshima Is.: 1♂, Santarô-tôge, 8-VIII-1965, S. UEDA (EU); 1♀, Gusuku, 1-IV-1968, M. TOMOKUNI; 1♀, Ichi, Sumiyô-son, 25-VIII-1989, H. ONO. — Okinawa Is.: 1♂, Yona, Kunigami, 9-V-1975, dead material at light, Y. NOTSU; 1♀, Yona, Kunigami, 22-V-1973, Y. KUROSAWA; 1♀, Hentona, Kunigami, 16-IV-1975, S. SAITÔ. — Ishigaki-jima Is.: 1♀, Mt. Omoto-dake, 1-VII-1965, K. HATTA (EU); 1♂, Mt. Banna-dake, 14～15-V-1975, LT, Y. NOTSU (EU). — Iriomote-jima Is.: 1♂, Uehara, 10-XI-1984, LT, M. TOMOKUNI; 2♂1♀, Shirahama, 22-VI-1965, K. HATTA (EU); 1♀, Shirahama, 18-V-1975, Y. NOTSU (EU); 1♂, Shirahama, 10-X-1988, M. SAKAI; 1♂, Shirahama～Sonai, 26-XI-1972, J. AOKI; 2♂, Shirahama～Sonai, 27-V-1973, Y. KUROSAWA; 1♂, Sonai～Shirahama, 1-VII-1968, M. TAKAGI (EU); 2♀, Inaba, 23-VI-1965, K. HATTA (EU); 1♀, 6-X-1989, M. KAWAMURA. — Yonaguni-jima Is.: 1♂, Urabu-dake, 12-V-1963, Y. ARITA (EU).

Other specimens than Japanese. Philippines: 1♂1♀, Los Baños, Luzon Is., P. I. BAKER (ZMUH).

Distribution. Japan(Honshu, Shikoku, Kyushu, Ryukyu Isls.); the Philippines (Luzon Is.).

Remarks. This species has been known in Japan as *P. piratoides* (nec COSTA), but it is still uncertain if this species is really a synonym of true *P. piratoides* (COSTA). I have examined the lectotype (NHM) of *Nabis bicolor* WALKER (syn. with *P. piratoides* by DISTANT, 1901), and 1♂1♀ from the Philippines (SCUDDER det. as *P. piratoides;* SMNH) and 1♂1♀ also from the Philippines ('Los Baños, P. I. BAKER'; SCUDDER det. as *P. piratoides*; ZMUH). Japanese specimens agree well with the latter from the Philippines, but they unquestionably belong to a species different from the lectotype and other specimens from the Philippines. The name *Paromius exiguus* should therefore be preserved for the Japanese species until certain type material of *P. piratoides* (COSTA) can be examined. From the other species of Japan, this is easily recognized on the long rostrum extended to near the mid-coxae.

Paromius nigriapicalis sp. nov.

[Japanese name: Tsumaguro-hoso-nagakamemushi]

(Figs. 1d, 3e, g, 4f, 5a)

Holotype, male. Body length 6.5; head width across eyes 1.0; pronotal length 1.4, width across humeri 1.5; hemelytral length 4.3, width at the widest part 1.7; antennal length 3.8, in mm.

Coloration. Ground colour of body light brown, moderately shining. Head,

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anterior pronotal lobe, scutellum except for the tip, and meso- and metathoraces beneath excluding posterior portions of the latter blackish brown. Acetabula and abdomen beneath reddish brown. Fourth antennal segments a little infuscate in apical three-fourths. Small spots arranged as shown in Fig. 5a on coria, and punctures on posterior pronotal lobe and hemelytra dark brown. Legs yellowish brown, with each coxa and fore-trochanters dark reddish brown; apices of spines on fore-femora, extreme tip of each tibia, and apical two segments of each tarsus blackish.

Structure. Head as long as wide, slightly declivous, densely covered with decumbent silvery pubescence, with clypeus strongly protruded from lateral lobes. Eyes nearly elliptical, longer than wide (10 : 7) seen from above, moderately prominent laterad. Antennae longer than half the body length; proportion of segments 1 to 4 as 11 : 23 : 19 : 22. Rostrum short, distinctly projected beyond fore-coxae but not reaching middle of mesosternum; proportion of segments 1 to 4 as 14 : 13 : 6 : 7.

Pronotum covered with minute pubescence, strongly constricted behind middle; pronotal collar coarsely punctate, sharply bordered with anterior pronotal lobe by a deep groove which is posteriorly sinuate medially, with anterior margin straight; anterior pronotal lobe distinctly swollen, somewhat shagreened and pruinose, slightly longer than posterior pronotal lobe (5 : 4), coarsely and very shallowly punctate, but the punctures are hardly visible, with lateral margins rounded, widest at posterior fifth; posterior pronotal lobe convex dorsally, coarsely punctate, strongly divergent posteriad, clearly swollen at humeri which are impunctate, with posterior margin faintly concave on scutellum. Scutellum longer than wide (17 : 14), medially carinate in apical two-thirds, punctate except for disc; the punctures becoming larger and deeper on both sides of the carina.

Hemelytra sparsely covered with very fine pubescence, weakly constricted at about basal seventh, widest at basal two-fifths; clavus nearly parallel-sided, punctate in three regular and an extra irregular rows, the latter of which is situated between inner and central regular rows; corium nearly as long as two-thirds of hemelytral length, coarsely and irregularly punctate in its outer half, with three regular rows of punctures in the inner half; costal margins impunctate, obliquely reflexed upwards, as wide as pronotal collar at each widest part; membranes hyaline, extending to tip of abdomen. Legs moderately long; fore-femora moderately swollen, ventrally with two series of spines; fore-tibiae slightly curved in basal halves; relative lengths of 1st tarsal segments of fore-, middle- and hindlegs as 13 : 15 : 22. Meso- and metathoraces beneath coarsely and shallowly punctate; metathoracic evaporative area expanded laterad to about two-thirds of metapleural width. Abdomen beneath finely pubescent; posterior margin of 4th abdominal sternite indistinct.

Male genitalia (of two paratypes): — Pygophore normal in shape; pygopho-

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ral process consisting of a pair of narrow lateral lobes, and of a short upright blade-like posterior lobe. Parameres (Fig. 4f) well expanded at shank forming protruded dorsal lobe and broad bilobated ventral lobe, with a long well tapered blade. Phallus rather simple, moderately sclerotized; phallotheca weakly sclerotized ventrally; conjunctiva laterally with a pair of conical processes anterior to the middle; ejaculatory reservoir consisting of a body and a pair of wings, the latter of which are well expanded latero-ventrally; vesica with a pair of very weakly sclerotized processes, the proximal one of which is short and faintly serrated with 4 or 5 teeth on its outer margin; distal vesical process long, about three and a half times as long as the proximal one, with outer margin rather distinctly serrated in its apical and basal portions; helicoid process distinct, forming two turns; gonoporal process with about 4 turns.

Female. Similar to male in general aspect, but a little larger; body length 6.0–6.9 mm (av. 6.5 mm, n=11; in male 6.0–6.6, av. 6.3 mm, n=8); anterior pronotal lobe shorter, nearly as long as posterior pronotal lobe; the latter a little more convex dorsally than that of male.

Type series. Holotype ♂: Uehara, Iriomote Is., the Ryukyus, Japan, 10-XI-1984, by light trap, M. TOMOKUNI leg. Paratypes: the Ryukyus, Japan — 1♀,

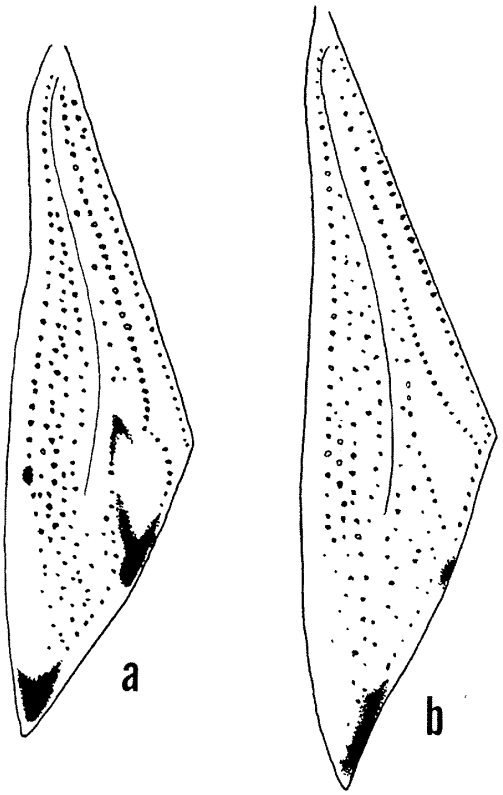

Fig. 5. Corium of *Paromius* spp. a, *P. nigriapicalis* sp. nov., Nakagusuku, Okinawa Is., the Ryukyus, Japan; b, *P. excelsus*, Baguio, Luzon Is., Philippine.

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China-chô, Okinoerabu Is., 1-VII-1964, K. HATTA leg. (EU); 1♂1♀, Yona, Okinawa Is., 7～9-V-1975, Y. NOTSU leg. (EU); 1♂, Mt. Yaega-dake, Okinawa Is., 5-V-1975, Y. NOTSU leg. (EU); 1♀, Nakagusuku, Okinawa Is., 9-V-1973, T. NAKANE leg.; 1♂2♀, Nakagusuku, Okinawa Is., 9-V-1973, S. HISAMATSU leg.; 1♂, Naha, Okinawa Is., 27-V-1975, Y. NOTSU leg.(EU); 1♀, Naha, Okinawa Is., 8-V-1973, S. HISAMATSU leg.; 1♂, Hyakuna, Okinawa Is., 10-V-1973, T. NAKANE leg.; 1♂3♀, Hyakuna, Okinawa Is., 4-V-1975, Y NOTSU leg.; 1♂, Mt. Omoto-dake, Ishigaki Is., 25-V-1990, S. MIYAKAWA leg.; 1♀, Mt. Omoto-dake, Ishigaki Is., 19-IV-1992, S. MIYAKAWA leg.; 1♀, Mt. Banna-dake, Ishigaki Is., 11-V-1975, Y. NOTSU leg.

Distribution. Japan (Ryukyu Isls.–Okinoerabu Is., Okinawa Is., Ishigaki Is. and Iriomote Is.).

Remarks. This new species seems to be the closest relative of *Paromius excelsus* BERGROTH described from the Philippines (Baguio, Luzon Is.). Compared with two specimens of *P. excelsus* from the Philippines (1♂ (Figs. 3d, f, 4g, 5b), 'Baguio, Benguet, Baker' and 1♀, 'Mt. Makiling, Luzon, Baker', SCUDDER det. 1963, both in coll. ZMUH), it is distinguished by the shorter and less elevated posterior pronotal lobe (Figs. 3e, g), and different pattern of the dark corial spots (Fig. 5a). Besides these, shape of the male genitalia clearly differs as follows. *Paromius excelsus*: Parameres (Fig. 4g) with short obtuse dorsal lobe and short obtuse less curved blade. Phallus with a pair of shield-shaped processes anterior to the middle of the conjunctiva; proximal vesical process extremely reduced, only represented by a short membranous sack; distal vesical process well sclerotized, strongly twisted near base, with outer margin evenly serrated with 15 or 16 teeth. From other Japanese species of the genus, it is easily separable by the characteristic corial markings and distinctly inflated anterior pronotal lobe.

Key to the Japanese Species of *Paromius*

1. Rostrum long, nearly reaching mid-coxae ..... *P. exiguus* (DISTANT)
— Rostrum short, extending to the middle of mesosternum at the most ... 2
2. Apex of corium narrowly dark. Anterior pronotal lobe distinctly swollen.. ..... *P. nigriapicalis* sp. nov.
— Apex of corium not darkened. Anterior pronotal lobe convex dorsally, but not remarkably swollen 3
3. All femora usually blackish in most parts. Posterior pronotal lobe usually with three dark stripes ..... *P. jejunus* (DISTANT)
— All femora light brown, not tinged with black. Posterior pronotal lobe without dark stripes ..... *P. gracilis* (RAMBUR)

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